

**Remarks**

Applicants respectfully request further examination and reconsideration in view of the above amendments and the comments set forth fully below. Claims 1, 3-10, 12-19, 21-28, 30-37 and 39-47 were pending. Within the Office Action, Claims 1, 3-10, 12-19, 21-28, 30-37 and 39-47 have been rejected. By the above amendments, Claims 1, 10, 19, 28 and 44 have been amended. Accordingly, Claims 1, 3-10, 12-19, 21-28, 30-37 and 39-47 are now pending.

**Amendments to the Claims**

The independent Claims 1, 10, 19, 28 and 44 have been amended such that the claims each parallels independent Claim 37. Specifically, each of the Claims 1, 10, 19, 28 and 44 includes the limitation “document type definitions.” Support for this limitation is found throughout the present specification, such as at least on page 7, lines 30-33. Applicants respectfully submit that the amendments to Claims 1, 10, 19, 28 and 44 do not introduce any new matter.

**Rejections Under 35 U.S.C. § 103**

Within the Office Action, Claims 1, 3-6, 10, 12-15, 19, 21-24, 28, 30-33, 39-42 and 44-46 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 7,404,142 to Tischer (hereinafter “Tischer”) in view of U.S. Application No. 2005/0283797 to Eldering et al. (hereinafter “Eldering”). Applicants respectfully disagree.

Tischer teaches a structure file defining the hierarchical structure and a plurality of content files each defining a set of digital content items. [Tischer, Abstract] Each content file is related to a position within the hierarchical structure, thereby organizing the digital content items into the hierarchical structure. [Tischer, col. 4, lines 24-25] To present categories and digital content items rapidly, categories are read from the structure file and sets of digital content items are read from each content file. [Tischer, col. 4, lines 54-57] The hierarchical structure maps categories to areas on a display, as illustrated in FIGS. 3a-b. Specifically, categories of the first layer from the structure file is read and mapped to areas on the display. [Tischer, col. 6, lines 36-37] Continuously, a location on the display is received via a pointing device and a category corresponding to the received location is displayed. [Tischer, col. 7, lines 39-46]

Although Tischer teaches that a server is operable to communicate with other computing devices over a network [Tischer, col. 3, lines 37-39], Tischer does not teach a communications

layer that provides a communications protocol including document type definitions to manage data content exchange between the network device and the one or more other network devices.

Tischer also does not teach an extension layer that provides document type definitions extensions to the document type definitions. Instead, Tischer simply teaches a structure file that defines a hierarchical structure for sets of digital content items. Tischer teaches that the structure file can be a document type definition file. [Tischer, col. 3, lines 54-59] However, nowhere in the specification of Tischer does Tischer teach an *extension layer that includes extensions to the document type definitions.*

Tischer also does not teach a hierarchical data content structure that comprises a plurality of channels to store data content, wherein the data content is selectively offered and distributed. On page 3 of the Office Action, it is recognized that Tischer fails to disclose that the data is selectively offered and distributed. Elderding is apparently cited for this reason.

Elderding teaches a method and system for displaying and scheduling advertisements which allows a viewer to select advertisements of interest and view them. The viewer (subscriber) is presented a selection of advertisements in an advertisement guide menu, and selects which advertisements or types of advertisements, are of interest. Targeting is accomplished in part by having the viewer select the advertisements that are of interest. [Elderding, ¶s 0024-0025] Specifically, the viewer is presented with a set of market segments descriptions and asked to select one. [Elderding, ¶ 0089] However, Elderding does not teach a communications layer that provides a communications protocol including document type definitions to manage data content exchange between the network device and the one or more other network devices. Elderding also does not teach an extension layer that provides document type definitions extensions to the document type definitions.

Accordingly, neither Tischer, Elderding nor their combination teach a communications layer that provides a communications protocol including document type definitions to manage data content exchange between the network device and the one or more other network devices. Also, neither Tischer, Elderding nor their combination teach an extension layer that provides document type definitions extensions to the document type definitions.

In contrast to Tischer, Elderding and their combination, the presently claimed invention teaches that data content is organized, and thereby distributed, according to a hierarchical data content structure defined by ICE DTD extensions. [Present Specification, Abstract] Specifically, the content server and subscribing network devices each includes a communication layer and an extension layer. [Present Specification, page 7, lines 18-22] The communication layer is an

Information Content and Exchange (ICE) protocol which includes ICE document type definitions (DTDs). ICE manages data content exchange between the content server and the subscribing network devices. The extension layer includes extensions to the ICE DTDs. [Present Specification, page 7, lines 30-33] The content server uses ICE and ICE DTD extensions to send information and the data content according to the subscribing device. [Present Specification, page 8, lines 1-5] As discussed above, neither Tischer, Eldering nor their combination teach a communications layer that provides a communications protocol including document type definitions to manage data content exchange between the network device and the one or more other network devices. Also as discussed above, neither Tischer, Eldering nor their combination teach an extension layer that provides document type definitions extensions to the document type definitions.

Independent Claim 1 is directed to a network device coupled to a network of devices. The network device of Claim 1 comprises a hardware system configured to implement one or more applications, a network layer coupled to interface with one or more other network devices, a communications layer to provide a communications protocol including document type definitions to manage data content exchange between the network device and the one or more other network devices, and an extension layer to provide document type definition extensions to the document type definitions, wherein the document type definition extensions define a hierarchical data content structure for data content and metadata corresponding to the hierarchical data content structure, further wherein the hierarchical data content structure comprises a plurality of channels to store the data content, wherein the data content is selectively offered and distributed. As discussed above, neither Tischer, Eldering nor their combination teach a communications layer that provides a communications protocol including document type definitions to manage data content exchange between the network device and the one or more other network devices. Also as discussed above, neither Tischer, Eldering nor their combination teach an extension layer that provides document type definitions extensions to the document type definitions. For at least these reasons, the independent Claim 1 is allowable over the teachings of Tischer, Eldering and their combination.

Claims 3-6 are dependent upon the independent Claim 1. As discussed above, the independent Claim 1 is allowable over the teachings of Tischer, Eldering and their combination. Accordingly, Claims 3-6 are all also allowable as being dependent upon an allowable base claim.

Independent Claim 10 is directed to a method of providing data content between a first network device and one or more other network devices. The method of Claim 10 comprises

providing a communications protocol including document type definitions to manage data content exchange between the first network device and the one or more other network devices, providing document type definition extensions to the document type definitions, wherein the document type definition extensions define a hierarchical data content structure for data content and metadata corresponding to the hierarchical data content structure, configuring the hierarchical data content structure into a plurality of channels to store the data content, wherein the data content is selectively offered and distributed, and transmitting the data content between the first network device and the one or more other network devices according to the communication protocol and the document type definition extensions to the communications protocol. As discussed above, neither Tischer, Eldering nor their combination teach a communications layer that provides a communications protocol including document type definitions to manage data content exchange between the network device and the one or more other network devices. Also as discussed above, neither Tischer, Eldering nor their combination teach an extension layer that provides document type definitions extensions to the document type definitions. For at least these reasons, the independent Claim 10 is allowable over the teachings of Tischer, Eldering and their combination.

Claims 12-15 are dependent upon the independent Claim 10. As discussed above, the independent Claim 10 is allowable over the teachings of Tischer, Eldering and their combination. Accordingly, Claims 12-15 are all also allowable as being dependent upon an allowable base claim.

Independent Claim 19 is directed to an apparatus for providing data content between a first network device and one or more other network devices. The apparatus of Claim 19 comprises a hardware system configured to implement means for providing a communications protocol including document type definitions to manage data content exchange between the first network device and the one or more other network devices, means for providing document type definition extensions to the document type definitions, wherein the document type definition extensions define a hierarchical data content structure for data content and metadata corresponding to the hierarchical data content structure, means for configuring the hierarchical data content structure into a plurality of channels to store the data content, wherein the data content is selectively offered and distributed, and means for transmitting the data content between the first network device and the one or more other network devices according to the communication protocol and the document type definition extensions to the communications protocol. As discussed above, neither Tischer, Eldering nor their combination teach a

communications layer that provides a communications protocol including document type definitions to manage data content exchange between the network device and the one or more other network devices. Also as discussed above, neither Tischer, Eldering nor their combination teach an extension layer that provides document type definitions extensions to the document type definitions. For at least these reasons, the independent Claim 19 is allowable over the teachings of Tischer, Eldering and their combination.

Claims 21-24 are dependent upon the independent Claim 19. As discussed above, the independent Claim 19 is allowable over the teachings of Tischer, Eldering and their combination. Accordingly, Claims 21-24 are all also allowable as being dependent upon an allowable base claim.

Independent Claim 28 is directed to a network. The network of Claim 28 comprises one or more network devices, and a first network device coupled to the one or more other network devices. The first network device comprises one or more applications, a network layer coupled to interface with the one or more other network devices, a communications layer to provide a communications protocol including document type definitions to manage data content exchange between the first network device and the one or more other network devices, and an extension layer to provide document type definition extensions to the document type definitions, wherein the document type definition extensions define a hierarchical data content structure for data content and metadata corresponding to the hierarchical data content structure, further wherein the hierarchical data content structure comprises a plurality of channels to store the data content, wherein the data content is selectively offered and distributed. As discussed above, neither Tischer, Eldering nor their combination teach a communications layer that provides a communications protocol including document type definitions to manage data content exchange between the network device and the one or more other network devices. Also as discussed above, neither Tischer, Eldering nor their combination teach an extension layer that provides document type definitions extensions to the document type definitions. For at least these reasons, the independent Claim 28 is allowable over the teachings of Tischer, Eldering and their combination.

Claims 30-33 are dependent upon the independent Claim 28. As discussed above, the independent Claim 28 is allowable over the teachings of Tischer, Eldering and their combination. Accordingly, Claims 30-33 are all also allowable as being dependent upon an allowable base claim.

Independent Claim 44 is directed to a network device coupled to a network of devices. The network device of Claim 44 comprises a hardware system configured to implement one or more applications, a network layer coupled to interface with one or more other network devices, a communications layer to provide a communications protocol including document type definitions to manage data content exchange between the network device and the one or more other network devices, and an extension layer to provide document type definition extensions to the document type definitions, wherein the document type definition extensions define a hierarchical data content structure for data content and metadata corresponding to the hierarchical data content structure, further wherein the hierarchical data content structure comprises a plurality of channels to store the data content, wherein the data content is selectively offered and distributed, wherein each channel within the plurality of channels includes one or more content sub-channels, wherein each channel within the plurality of channels provides data content of a related subject-matter and each content sub-channel of the one or more content sub-channels within a given channel segments the data content within the given channel according to more specific subject-matter than subject-matter of the given channel, wherein the metadata defines attributes of each of the plurality of channels, each of the sub-channels and each of the data content. As discussed above, neither Tischer, Eldering nor their combination teach a communications layer that provides a communications protocol including document type definitions to manage data content exchange between the network device and the one or more other network devices. Also as discussed above, neither Tischer, Eldering nor their combination teach an extension layer that provides document type definitions extensions to the document type definitions. For at least these reasons, the independent Claim 44 is allowable over the teachings of Tischer, Eldering and their combination.

Claims 45 and 46 are dependent upon the independent Claim 44. As discussed above, the independent Claim 44 is allowable over the teachings of Tischer, Eldering and their combination. Accordingly, Claims 45 and 46 are both also allowable as being dependent upon an allowable base claim.

Within the Office Action, Claims 7-9, 16-18, 25-27, 34-37, 43 and 47 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Tischer in view of Eldering, and further in view of U.S. Application No. 2002/0143819 to Han et al. (hereinafter “Han”). Applicants respectfully disagree.

As discussed above, neither Tischer, Eldering nor their combination teach an extension layer that provides document type definitions extensions to the document type definitions.

Han teaches a syndicator for disseminating Web services and other resources from service and content providers to service consumers and for establishing and implementing a subscription agreement which specifies the terms upon which digital assets are provided to the subscribing consumers. [Han, Abstract] However, Han does not teach an extension layer that provides document type definitions extensions to the document type definitions. Therefore, neither Tischer, Eldering, Han nor their combination teach an extension layer that provides document type definitions extensions to the document type definitions.

Claims 7-9 are dependent upon the independent Claim 1. As discussed above, the independent Claim 1 is allowable over the teachings of Tischer, Eldering and their combination. Accordingly, Claims 7-9 are all also allowable as being dependent upon an allowable base claim.

Claims 16-18 are dependent upon the independent Claim 10. As discussed above, the independent Claim 10 is allowable over the teachings of Tischer, Eldering and their combination. Accordingly, Claims 16-18 are all also allowable as being dependent upon an allowable base claim.

Claims 25-27 are dependent upon the independent Claim 19. As discussed above, the independent Claim 19 is allowable over the teachings of Tischer, Eldering and their combination. Accordingly, Claims 25-27 are all also allowable as being dependent upon an allowable base claim.

Claims 34-36 are dependent upon the independent Claim 28. As discussed above, the independent Claim 28 is allowable over the teachings of Tischer, Eldering and their combination. Accordingly, Claims 34-36 are all also allowable as being dependent upon an allowable base claim.

Independent Claim 37 is directed to a network device coupled to a network of devices. The network device of Claim 37 comprises one or more applications, a network layer coupled to interface with one or more other network devices, an Information and Content Exchange protocol including document type definitions to manage data content exchange between the network device and the one or more other network devices, and extensions to the document type definitions, wherein document type definition extensions define a hierarchical data content structure for data content and metadata corresponding to the hierarchical data content structure, further wherein the hierarchical data content structure comprises a plurality of channels to store the data content, wherein the data content is selectively offered and distributed. As described

above, neither Tischer, Eldering, Han nor their combination teach an extension layer that provides document type definitions extensions to the document type definitions. For at least these reasons, the independent Claim 37 is allowable over the teachings of Tischer, Eldering, Han and their combination.

Claims 39-43 and 47 are dependent on the independent Claim 37. As described above, the independent Claim 37 is allowable over the teachings of Tischer, Eldering, Han and their combination. Accordingly, Claims 39-43 and 47 are all also allowable as being dependent upon an allowable base claim.

For the reasons given above, Applicants respectfully submit that all of the pending claims are now in condition for allowance, and allowance at an early date would be greatly appreciated. Should the Examiner have any questions or comments, the Examiner is encouraged to call the undersigned at (408) 530-9700 to discuss the same so that any outstanding issues can be expeditiously resolved.

Respectfully submitted,  
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